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ABSTRACT

Anxiety has been shown to have detrimental effects on students in the classroom. This study examined the relations between motivational variables and anxiety. In particular, this study utilized goal orientation theory to examine whether the personal goals a student adopts and the goal structures a student perceives in the classroom are predictors of anxiety. In addition, other motivational variables such as academic efficacy, task values, and expectancy for success were included to examine their relations to anxiety in the classroom. The purpose of the present research was to examine predictors of anxiety in the classroom, while looking particularly closely at personal goals and classroom goal structures to see if, in fact, there are any patterns that predict high/low anxiety. Furthermore, the study investigated if these patterns were present when one accounted for a student's academic efficacy, task values and expectancy for success. (GCP)

Predicting Classroom Communication Anxiety through Students' Motivational Variables

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Introduction

Anxiety has been shown to have detrimental effects on students in the classroom (Ericson & Gardner, 1992). This study examined the relations between motivational variables and anxiety. In particular, this study utilized goal orientation theory to examine whether the personal goals a student adopts and the goal structures a student perceives in the classroom are predictors of anxiety. In addition, other motivational variables such as academic efficacy, task values, and expectancy for success were included to examine their relations to anxiety in the classroom. Ames (1992) demonstrated that a mastery goal orientation (student's focus on development) may help protect students from experiencing high levels of anxiety. Students who perceive they are in the class for the sake of learning may focus less on demonstrating competence. On the other hand, some research has shown that students who perceive the classroom goal structure as performance-oriented (e.g., the desire to outperform other students) may experience anxiety (Pintrich, Smith, Garcia, & McKeachie, 1993). Because of their need to demonstrate ability or to hide inabilities from others, students in this category may demonstrate high levels of anxiety, because they perceive they are in a competitive and evaluative environment. The purpose of the present research was to examine predictors of anxiety in the classroom, while looking particularly closely at personal goals and classroom goal structures to see if, in fact, there are any patterns that predict high/low anxiety. Furthermore, the study investigated if these patterns were present when one accounted for a student's academic efficacy, task values and expectancy for success.

Method

Participants and procedure

Participants included 103 post-secondary education students from a small, private, southeastern liberal arts college. All participants were enrolled in a Professional Communications class. The sample included 50 males and 53 females. The participants were given a 44-item survey during the fifth week of the semester to measure their motivational variables in the class. An additional 20-item survey was given immediately after the students gave a speech to their class. The second survey measured the students' level of anxiety. The two surveys were combined to examine the hypotheses and research questions.

Measures

Table 1. Summary of Number of Items in Scales and Reported Reliability

Scale	# of Items	Alpha
Classroom Mastery Goal	6	.87
Classroom Approach Goal	2	.63
Classroom Avoidance Goal	5	.82
Personal Mastery Goal	5	.86
Personal Approach Goal	5	.89
Personal Avoidance Goal	4	.88
Academic Efficacy	5	.89
Task Values	7	.81
Expectancy for Success	2	.61
Anxiety	20	.85

Note. Anxiety is the dependent variable scale used in the study.

Results

Independent samples t-tests revealed two significant gender differences. These results are summarized in Table 2. Bivariate correlations among all variables are shown in Table 3.

Table 2. Gender differences in independent and dependent variables

Scale	Mean for Females	Mean for Males	t
Task Values	3.93	3.62	-3.06**
Anxiety	2.31	2.00	-3.67***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3. Correlations for Independent and Dependent Variables

Measure	1	2	3	4	5	6	7	8	9	10
1. Pr. Sp. Exp	-									
2. Mastery Goal	.16	-								
3. Approach Goal	.01	.19	-							
4. Avoidance Goal	.03	.10	.84***	-						
5. Class Mastery	.08	.78***	-.01	-.07	-					
6. Class Approach	-.14	.22*	.42**	.38**	.13	-				
7. Class Avoidance	-.01	.16	.79***	.80**	.02	.51***	-			
8. Academic Efficacy	.26**	.43**	.02	-.01	.47**	.20*	.03	-		
9. Values	.49**	.24*	.02	.08	.20*	.08	-.02	.51***	-	
10. Exp. For Success	.10	.48**	.02	.04	.60***	.08	.05	.40**	.29**	-
11. Anxiety	-.30**	-.08	-.06	.01	-.06	-.08	-.01	-.28**	.01	-.35**

Note. Item one is previous speaking experience. Item one is measured "1" = no experience, "5" = a lot of experience. * $p < .05$ **, $p < .01$, *** $p < .001$

Results (cont.)

For the dependent variable "anxiety", a hierarchical multiple regression analysis was conducted, entering students' gender and previous speaking experience in step 1, followed by academic efficacy, task values, and expectancy for success in step 2, and the classroom goal orientations (i.e., mastery, performance-approach and performance-avoidance) in step 3.

Table 4.Summary of Hierarchical Regression Predicting Anxiety

Variable	β Step 1	β Step 2	β Step 3
Step 1			
Gender	.36***	.35***	.37***
Previous Speaking Exp.	-.31***	-.16	-.16
Step 2			
Academic Efficacy		-.12	-.09
Expectancy for Success		-.25*	-.26*
Values		.05	.08
Step 3			
Class Mastery Goal			-.07
Class Approach Goal			.01
Class Avoidance Goal			-.07
Adjusted R^2	.20***	.26*	.24
Change in R^2		.08*	.01
F	13.76***	3.50*	.28

Note. Gender coded 0 = male, 1 = female. Previous speaking experience was measured on a five- point scale with 1 = no experience, 5 = a lot of experience. * $p < .05$, ** $p < .01$, $p < .001$.

Results (cont.)

Additional regressions were conducted using personal goals (i.e., mastery, performance-approach and performance-avoidance) in the final step (see Tables 5 and 6). Because of multicollinearity among these variables, they were separated into two different regressions. The first two steps are gender and previous speaking experience in step 1, and academic efficacy, task values and expectancy for success in step 2.

Table 5.Summary of Hierarchical Regression Predicting Anxiety

Variable	β Step 1	β Step 2	β Step 3
Step 1			
Gender	.36***	.35***	.36***
Previous Speaking Exp.	-.31***	-.16	-.16
Step 2			
Academic Efficacy		-.12	-.12
Expectancy for Success		-.25*	-.25*
Values		.05	.05
Step 3			
Personal Mastery Goal			-.01
Personal Approach Goal			.09
Adjusted R^2	.20***	.26*	.25
Change in R^2		.08*	.01
F	13.76***	3.50*	.51

Note. Gender coded 0 = male, 1 = female. Previous speaking experience was measured on a five- point scale with 1 = no experience, 5 = a lot of experience. *p < .05, ** p < .01, *** p < .001.

Table 6.Summary of Hierarchical Regression Predicting Anxiety

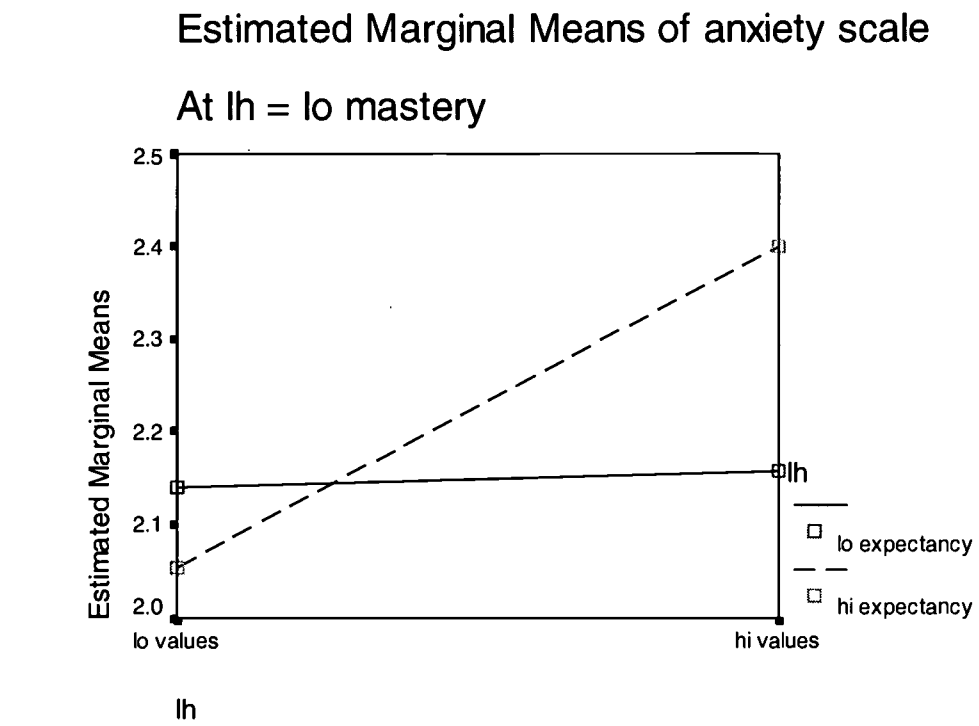
Variable	β Step 1	β Step 2	β Step 3
Step 1			
Gender	.36***	.35***	.35***
Previous Speaking Exp.	-.31***	-.16	-.16
Step 2			
Academic Efficacy		-.12	-.11
Expectancy for Success		-.25*	-.25*
Values		.05	.06
Step 3			
Personal Mastery Goal			-.03
Personal Avoidance Goal			.01
Adjusted R^2	.20***	.26*	.24
Change in R^2		.08*	.01
F	13.76***	3.50*	.04

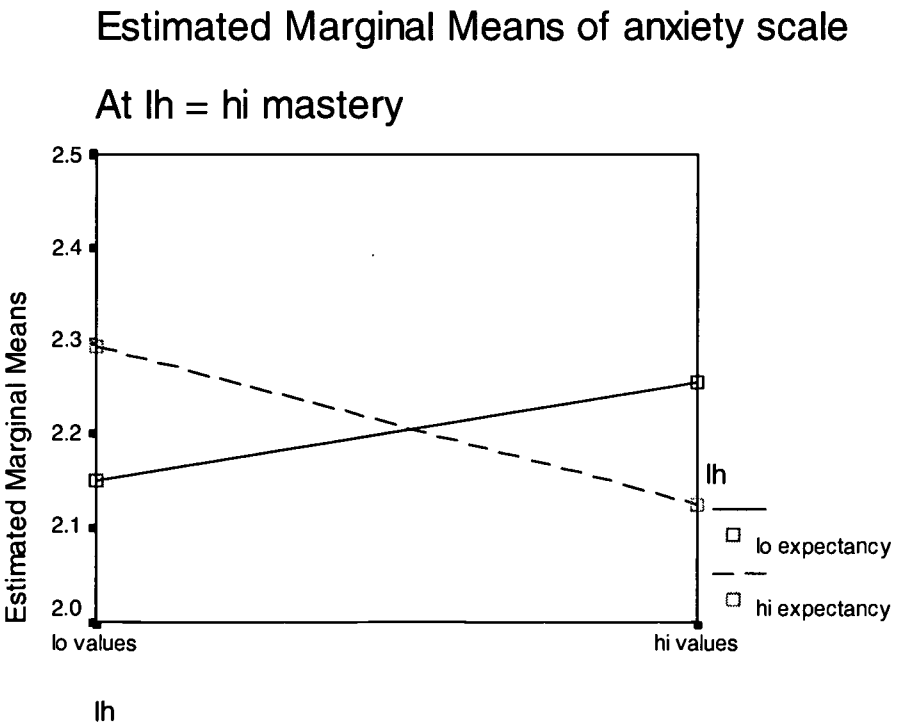
Note. Gender coded 0 = male, 1 = female. Previous speaking experience was measured on a five- point scale with 1 = no experience, 5 = a lot of experience. * $p < .05$, ** $< .01$, *** $p < .001$.

Results (cont.)

Additional analyses using the general linear model revealed a significant three-way interaction among personal mastery goals, task values, and expectancy for success, $F(1, 103) = 7.62$, $p < .01$ (see graph in Figure 1.)

Figure 1.Three-way Interaction Among Personal Mastery Goals, Task Values, and Expectancy for Success.





Discussion

Preliminary analyses exhibited significant gender differences for the variables of anxiety and task values. Females reported higher levels of anxiety and task values in the classroom than did males. Multiple regressions were conducted to examine predictors of anxiety. It was hypothesized that personal and classroom performance orientations would be related significantly to anxiety; this hypothesis was not supported. . It is interesting to note that expectancy for success was related to anxiety. Students who reported low levels of expectancy for success exhibited higher levels of anxiety. Consequently, it appears that if a student does not expect to do well in the class, the student will likely experience anxiety. Finally, a three-way interaction was found among personal mastery goals, task values, and expectancy for success. If a student was low in personal mastery but had high expectancy for success, the relationship between task values and anxiety was positive. In other words, as students reported higher task values, anxiety levels went up as well. On the other hand, if students were in a high personal mastery group and reported high expectancy for success, their anxiety decreased, as their task values increased. However, for the high mastery group with lower expectancies for success, anxiety increased as their task values increased.

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